

Applicants: de Groot, et al.
Serial No.: 10/049,473
Filed: July 30, 2002
Amendment
Page 2 of 7

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listing of claims in the application.

1-38. (Cancelled).

39. (Currently Amended) An immunogenic composition comprising an isolated protease maturation protein of *Streptococcus pneumoniae*, wherein the protein has an amino acid sequence as set forth in SEQ ID NO: 2, or a protein with a homology to SEQ. ID. NO: 2 that is greater than the homology between SEQ. ID. NO: 2 and sequences set forth in SEQ. ID. NOs: 3, 4, and 5 which has an Expect value as determined by Blast or Blastp computer programs of less than 2e⁻²⁷ when compared to SEQ. ID. NO:2, and wherein the composition raises an opsonophagocytic immune response to *S. pneumoniae*.

40. (Cancelled).

41. (Previously Presented) The immunogenic composition according to claim 39, further comprising a suitable adjuvant or carrier.

42. (Previously Presented) The immunogenic composition according to claim 39, wherein the protein is the protease maturation protein from *S. pneumoniae* Ft231 or EF3296.

43. (Previously Presented) The immunogenic composition according to claim 39, wherein the protein is a purified, recombinant or synthetic protein.

44. (Currently Amended) A method for preparing of an immunogenic composition against *S. pneumoniae* comprising the steps of:

Applicants: de Groot, et al.
Serial No.: 10/049,473
Filed: July 30, 2002
Amendment
Page 3 of 7

a. isolating a protease maturation protein of *S. pneumoniae*, wherein the protein has an amino acid sequence as set forth in SEQ. ID. NO: 2, or a protein with a homology to SEQ. ID. NO: 2 that is greater than the homology between SEQ. ID. NO: 2 and the sequences set forth in SEQ. ID. NOs: 3, 4 and 5 which has an Expect value as determined by Blast or Blastp computer programs of less than 2e⁻²⁷ when compared to SEQ. ID. NO:2, and wherein the protein is able to raise an opsonophagocytic immune response to *Streptococcus pneumoniae*; and

b. combining the protein obtained under (a) with a suitable carrier or adjuvant.

45. (Cancelled).

46. (Previously Presented) A method for raising an immune response in a mammal against *S. pneumoniae* comprising administering a suitable dose of an immunogenic composition according to claim 39.

47. (Currently Amended) A recombinant protease maturation protein of *S. pneumoniae* comprising an amino acid sequence as set forth in SEQ. ID. NO: 2, or a protein with a homology to SEQ. ID. NO: 2 that is greater than the homology between SEQ. ID. NO: 2 and the sequences set forth in SEQ. ID. NOs: 3, 4 and 5 which has an Expect value as determined by Blast or Blastp computer programs of less than 2e⁻²⁷ when compared to SEQ. ID. NO:2, and wherein the protein is able to raise an opsonophagocytic immune response to *Streptococcus pneumoniae*.

48. (Currently Amended) A carrier for an immunogen in a vaccine, wherein said carrier comprises an isolated protease maturation protein of *S. pneumoniae*, wherein the protein has an amino acid sequence as set forth in SEQ. ID. NO: 2, or a protein with a homology to SEQ. ID. NO: 2 that is greater than the homology between SEQ. ID. NO: 2 and the sequences set forth in SEQ. ID. NOs: 3, 4 and 5 which has an Expect value as determined by Blast or Blastp computer programs of less than 2e⁻²⁷ when compared to SEQ. ID. NO:2,

Applicants: de Groot, et al.
Serial No.: 10/049,473
Filed: July 30, 2002
Amendment
Page 4 of 7

and wherein the protein is able to raise an opsonophagocytic immune response to *Streptococcus pneumoniae*.

49. (New) An immunogenic composition comprising an isolated protease maturation protein of *Streptococcus pneumoniae*, wherein the protein has an amino acid sequence as set forth in SEQ ID NO: 2 starting at the methionine codon at position 10, or a protein with a homology to SEQ. ID. NO: 2 that is greater than the homology between SEQ. ID. NO: 2 starting at the methionine codon at position 10 and the sequences set forth in SEQ. ID. NOS: 3, 4 and 5, and wherein the composition raises an opsonophagocytic immune response to *S. pneumoniae*.